

# Building a Caribbean Pathway for Disaster Resilience in the Caribbean Community (CARICOM)

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## 1.0 INTRODUCTION

This Paper provides *“A Caribbean Pathway for Building Resilience”* in keeping with the decision of Heads of Government at their Twenty-Ninth Inter-Sessional Meeting (February, 2018, Haiti) to revisit the Region’s resilience agenda following the unprecedented 2017 hurricane occurrences and impact in the Caribbean region and the recognition of the region’s vulnerability to a variety of hazards.

It was prepared following a set of engagements with the CARICOM Heads of the Community Institutions Meeting on May 14, 2018, discussions with CARICOM institutions on how they can accelerate and monitor the advancement of the resilience agenda through the institutional programming support to Participating States and culminating with a Regional Policy Dialogue on Building a Caribbean Pathway for Disaster Resilience in the CDEMA Participating, July 2-3, 2018 which included regional institutions and CARICOM member states.

It is being presented to the Council of Ministers of CDEMA Participating States for their consideration and endorsement, before being presented to the Conference of the Heads of Government of the Caribbean Community, July 4-6, 2018, Montego Bay, Jamaica.

## 2.0 CONTEXT

Within a three-week period spanning September 5-20, 2017, fifty percent (50%) of CDEMA Participating States faced an unprecedented threat of impact by three rapidly developing tropical cyclones which developed into major hurricanes. Whilst the threat and impacts on CDEMA Participating States may be exceptional, as we consider the effects of climate variability and change on meteorological hazards, this may not be unusual. The dynamic associated with this rapidly unfolding scenario underpins the call for advancing resilience at the local, national and regional level. The 2017 Hurricane Season therefore has served as a stark reminder of the devastating effect that the impact of natural hazards can have on the built environment and on the society as a whole. This is a teachable moment.

The Caribbean is often referred to as being located in the second most disaster-prone area of the world. This was demonstrated through the Caribbean’s history from the early 1900’s where hurricanes, floods, volcanic eruptions and earthquake events caused significant deaths and economic losses. Recent threats from human-induced hazards such as pandemics, oil spills, terrorist threats and exponential growth and movement of sargassum seaweed is also now a part of the landscape and future impacts are projected to

increase. The increasing intensity and frequency with which disasters are occurring worldwide and in particular the toll they take on Caribbean Economies demonstrate the critical need to enhance disaster risk management within the Caribbean Region. [The Caribbean has a history of economic and social dislocation resulting from the impacts of a diversity of hazards including tropical cyclones, earthquakes, volcanic eruptions, and floods. The Disaster Database (EMDAT) indicates that 238 disasters have occurred in the Caribbean as a result of tropical cyclonic events between 1950 and 2014. It is considered among the most vulnerable regions of the world.

Whilst losses of life from these impacts have generally been on the decline damage and losses have been increasing. According to the International Monetary Fund (IMF) the period between 1990 and 2014 saw Caribbean sustaining losses between 1.8% and 2% of Gross Domestic Product per annum. In many cases losses as has exceeded 100 % GDP, e.g. Ivan Grenada (2004), Haiti 2010; Irma BVI 2017; Maria Dominica 2017: Without instituting or enhancing current measures for risk management, the outlook portends further economic challenges and dislocation especially for Small Island Developing States (SIDS) (IPCC 2014).

The Caribbean Small Island Developing States remains highly vulnerable and exposed and are seemingly increasing exposure through development practices. The vulnerability in the natural environment is also compounded by macro-economic vulnerabilities, poor human development and low productivity and competitiveness. The findings of the review of regional consultations (which occurred between 2012 and 2013) in the framing of the third iteration of the CDM Strategy 2014-2024 identified that more work was required in addressing the drivers of risk if the efforts to build a Safer More Resilient and Sustainable Caribbean Societies were to be achieved. This also emerged as critical barrier in the success of the implementation of the Hyogo Framework of Action 2005-2015 and has been a specific focus of the Sendai Framework for Action 2015-2030.

In focusing on rebuilding the countries affected by Hurricanes Irma and Maria CARICOM, at the Donor Conference held in New York in November 2017, has declared a vision of the Caribbean as the first climate Resilient Region in the world and buttressed that through the desire of the region for a wholistic approach to addressing risks from all hazards to achieve resilient development. This ambitious aspiration as well as the goal of the Comprehensive Disaster Management (CDM) Strategy which also seeks to achieve a *Safer more resilient and sustainable Caribbean* demands critical attention. It requires that Governments now clearly define what Resilience looks like in a Caribbean Context and the associated metrics to track progress towards this future desired state.

### **3.0 RESILIENCE DEFINED**

Recognising the critical link between disaster management and sustainable development, CDEMA spearheaded the adoption of a strategic Comprehensive Disaster Management (CDM) Strategy and Results Framework in 2001, in collaboration with stakeholders. The regional goal of the CDM Strategy and Results Framework for 2014 - 2024 is to realise **“Safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management”**.

Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (UNISDR, 2009).

For the Caribbean, resilience also connotes being able to bounce forward quickly in a manner that reduces susceptibility (increased liability to additional harm) to the impact of the same hazard.

Resilience ensures that lives and livelihoods are protected and assets safeguarded. In that context resilience also includes mitigation, to minimise the impact of hazards and embodies an ability to respond to the hazards which threaten the Caribbean region.

True resilience for the Caribbean will require transformation!

Transformation is not business as usual but essentially involves challenging the existing status quo including the systems and power relationships which cause the accumulation of vulnerability and which must be identified and changed, if root causes are to be addressed and societies are to be transformed.

#### **4.0 PILLARS OF RESILIENCE**

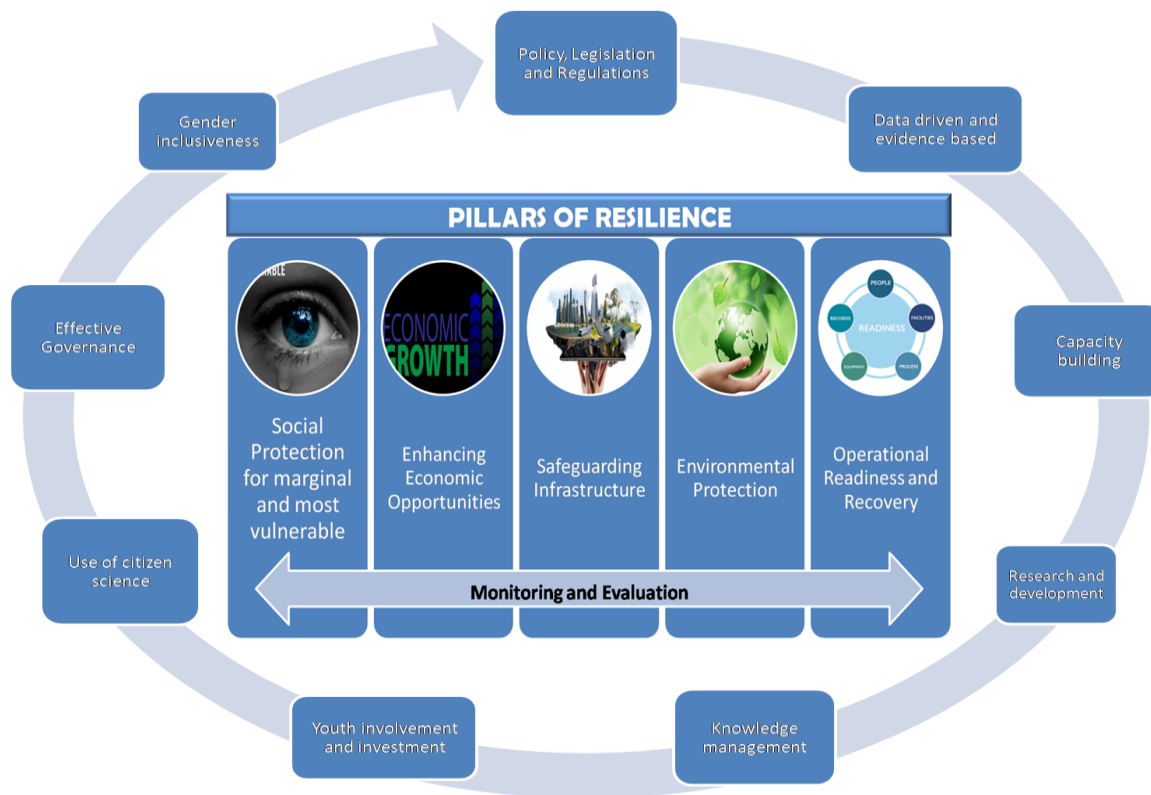
A Caribbean Pathway for Resilience is built around five (5) pillars,

- I. Social Protection for the Marginal and Most Vulnerable
- II. Safeguarding Infrastructure
- III. Enhancing Economic Opportunity
- IV. Environmental Protection
- V. Operational Readiness and Recovery

These pillars are underpinned by a set of key foundational and reinforcing elements which facilitate their delivery. These are:

- i. An enabling environment guided by Policy, Legislation and Regulations
- ii. Capacity Development
- iii. Research and Data Management
- iv. Information and Communication Technologies
- v. Disaster Risk Financing
- vi. Political Economy
- vii. Governance
- viii. Real Public Participation and
- ix. Youth Involvement

Monitoring and Evaluation of progress of the Pillars, including the contribution of the foundational and reinforcing elements is necessary, to ensure that the Caribbean region is steadfastly progressing towards achieving resilient development.



## 5.0 PRINCIPLES

Progress on a Caribbean pathway to resilience should embrace the following principles:

- i. Participatory Governance
- ii. Transformation of key institutions and institutional processes
- iii. Synergy and Interconnectedness of the pillars in the delivery
- iv. Evidenced-based approaches including harnessing knowledge and creativity of citizens
- v. A public sector where capacity or resilience is strengthened
- vi. A commitment to monitoring of progress and use of this information to inform adjustments

## 6.0 KEY ISSUES TO BE ADDRESSED IN THE PILLARS OF RESILIENCE

CDEMA acknowledges that while it is impossible to remove a hazard, it is possible to build resilience through a number of actions. Due to its vision and strategic thinking many actions to advance resilience is already embodied in the CARICOM Strategic Plan, CDM Strategy and other strategic frameworks at the sectoral level. There is therefore not a lack of knowledge. There is a need for wholistic harnessing of actions for collectively moving the agenda forward at the national and regional level and a significant

implementation deficit exists. We may very well possess all the plans, instructions and tools for building a resilient Caribbean and whilst there may be a lack of some financing for all the materials, the challenge may lie in the inappropriate sequencing of interventions and inadequate attention to the most critical actions. Investment in resilience also involves human behaviour change and should therefore target the human resource for such change, especially if undertaken within the context of development planning.

In that context, the key issues to be addressed within the Pillars are highlighted and these will guide the policy recommendations for action.

#### **4.1 Social Protection for the Marginal and Most Vulnerable**

Hazard impacts can affect all persons within a population but they affect the marginal and most vulnerable disproportionately since their coping mechanisms and capacities to withstand shocks are usually less than other groups. Social protection comprises policies and programmes which assist individuals and families especially the poor, differently-abled, indigent, low-income single parent families and the elderly to cope with crises and shocks.

Recovery can often also widen the gap between the rich and the poor, as the rich have the ability to bounce forward more quickly, whilst the poor have limited coping capacity which diminishes further overtime. Whatever social ills or inequalities exist or are not well managed, prior to disaster impact, are often magnified after a disaster and hence urgent attention is required during the time of normalcy. Well-designed social protection systems cognisant of these realities, will provide the much-needed cushion for the poor and the vulnerable.

Within the Caribbean, a number of social protection schemes already exist such as social assistance services, disability benefits and pension. Social protection mechanisms need to be broadened to support the most vulnerable. This includes: Small livelihood protection schemes; Subsidised home insurance for low-income families; Low-interest loans for retro-fitting of homes and construction of safe rooms; Retrofitting of homes for the differently-abled and elderly and Psycho-social support systems and empowerment programmes for those who live with mental illness.

#### **4.2 Safeguarding Infrastructure**

Limited, weak or absent standards and codes to inform infrastructure, facility and building design and construction and associated services are central to the challenges facing the Caribbean region. The CDM Audit<sup>1</sup> (2016) conducted by CDEMA indicated that Regional Building Standards (RBS) exist and incorporate hazard impact considerations. However, governments are often not legally bound by their national building codes requirements. Where legislated building codes exist, they are not adequately

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<sup>1</sup> The CDM Audit Tool identifies relevant Caribbean standards and seeks to capture and assess all aspects of institutional capacity for CDM in the region including a focus on all hazards, all phases, all sectors and all institutions, at all levels.

enforced for national Critical Infrastructure (CI) and housing in the region. This reality is amplified by weak monitoring where standards do exist. This has been repeatedly demonstrated by infrastructure losses by successive hazard events. In many countries, there are often limited or no agreed design criteria for protecting the Critical Infrastructure (CI) <sup>2</sup> such as hospitals, airports, seaports, police stations, prisons and national emergency operations centres.

There is also a need for safety standards with clearly defined roles and responsibilities for key sectors particularly agriculture, education and tourism and there is a lack of national incentives to promote mitigation. Strengthening the infrastructure particularly at the sectoral level is a key component of the CDM Strategy. Building resilient infrastructure will move the region towards a vision of safe communities and facilities which are adaptive.

### **4.3 Enhancing Economic Opportunity**

Many Caribbean states face challenges at the macro-economic level including high indebtedness and low productivity and competitiveness. These challenges are underpinned by limited financial planning which is often guided by short term decision making which limits policy continuity, limited capacity, lack of political will and long term visioning, and the ineffective use of post-disaster recovery frameworks for transformation. Competitiveness is hampered by high energy and labour costs and the slow pace of regional integration which limits market size and economies of scale for business.

In addition, many Caribbean economies have a narrow production base with heavy dependence on the Services sector, especially tourism. This is more challenging in times of disaster when primary natural and man-made assets are destroyed and the supporting infrastructure for service delivery needs significant recovery time. Resilience efforts are undermined by the dependence on a single economic earner.

Whilst graduation from ODA eligibility impacts on the ability of several Caribbean states to access development financing, the reality is that overall there is a deficit in implementation which suggests the need to strengthen capacities within the public service to facilitate implementation.

Many member states committed to Building Economic Resilience in the CARICOM Strategic Plan 2015-2019 and hence key actions are necessary to move this forward at the national and regional level including: Implementing actions to diversify the services industry offerings and strengthen manufacturing including cottage industries; adequately developing agriculture and fisheries to reduce the food import bill, increase food security and trade and Accelerating and holistically advancing energy efficiency and diversification efforts.

Enhancing economic opportunity is a necessary pillar to achieve resilient development in our region.

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<sup>2</sup> Critical infrastructure refers to any facility, asset, system, network, technology or service whether physical or virtual, that are so essential to any country that their incapacitation or destruction would have a debilitating effect on the health, safety, security, economic well-being (or any combination thereof), on its residents.

This must be based on the creation of an appropriate enabling environment, flexibility in social protection systems, incentivizing the business sector including Small and Medium Enterprises and creating spaces for entrepreneurship and innovation.

#### **4.4 Environmental Protection**

The impact of hazards, whether natural, anthropogenic or biological, have an environmental dimension. Environmental conditions may exacerbate hazard impacts and, conversely, hazard impacts have an impact on the environment. Environmental degradation lies at the core of the challenges facing the Caribbean region and is manifested in mangrove losses, deforestation leading to biodiversity loss, nutrient overloads which impact on soils and water, water and air pollution and solid waste disposal. Key factors contributing to environmental degradation include limited policy guidance, weak legislation and/or lack of enforcement of legislation, limited education and awareness and the impacts of natural and anthropogenic hazards.

This complex interaction between environment and hazards results in loss of life and injury, loss of livelihoods, negative impacts on Gross Domestic Product (GDP) due to the implication for productive sectors, negative impacts on employment levels, health and well being challenges and decreases in water quality and quantity.

Environmental protection is therefore inextricably linked to building resilience and is integral to social and economic aspects of resilience. Policy interventions therefore need to be focused at strengthening the enabling environment, promoting energy efficiency and renewable energy, strengthening the evidence base for decision making, incentivizing environmentally friendly practices and target setting to bring about transformational change.

#### **4.5 Operational Readiness and Recovery**

Operational readiness refers to the capability of a disaster management system to respond to a hazard. It is dependent on the level of preparedness and resourcing of the system. Within the CDEMA System, operational readiness at the regional level is addressed through the Regional Response Mechanism (RRM). The RRM is heavily dependent on the state of national readiness within the 18 Participating States since it is built through horizontal cooperation and draws on the national resources to deliver regionally.

As a region which is designated as the second most vulnerable globally, there is a broad diversity of natural, anthropogenic and biological hazards which are faced. In addition, increasing evidence of a changing climate has implications for both hydro-meteorological and biological hazards and current day climate variability may provide a signal of future experiences. Within this context, response is anticipated to be a consistent feature in states of the Caribbean Community going forward.

A key component of operational readiness that must be fostered is the Continuity of Government and

Business Operations. In addition, recovery planning and the ability to advance recovery efforts post-disaster impact is a key component of this pillar.

Successive hazard impacts in the region have repeatedly demonstrated that operational readiness and recovery planning have not been prioritized as components of national programming. It is noted that countries generally lack critical human and financial resources for executing emergency operations. Additionally, there exist in most instances poor communications infrastructure with limited redundancy to facilitate emergency telecommunication and information sharing.

At the regional level the resourcing for logistics and communications are inadequate for emergency operations. Additionally, and notwithstanding the existence of an established Regional Response Mechanism for coordinating response support to an impacted country, that mechanism is sometimes not leveraged by political actors.

The challenges identified may result in compromised response operations at both the national and regional levels, which means the relief does not reach the impacted population in a timely manner, support may not be rendered to save lives and protect the vulnerable.

Operational readiness and recovery is therefore identified as a necessary pillar to achieve resilience in the Caribbean Community.

Within this context, it is noted that there is a need for the political directorate to provide robust support for critical components of the national and regional response framework. This support should be based on several guiding principles, including strengthening of familiarity of the political directorate with national and regional response mechanisms, embracing ownership of the regional and national systems and in this regard there a political will to provide a higher level support to systems and their effective functioning.

## **7.0 RECOMMENDATIONS**

Against the background of the key issues the following policy recommendations are tabled by Pillar. The key is ensuring implementation and adequately contextualising this including ensuring that the use of technology in a way that does not create additional risks.

### **7.1 Social Protection for the Marginal and Most Vulnerable**

This focus is on people make all the other pillars relevant. As such the following is recommended.

- i. Harness synergies in the CARICOM Strategic Plan (including HRD) and the pillars of the resilient Caribbean.
- ii. Leverage National Social Protection programmes and policy frameworks for all levels of human vulnerability recognizing the reality of shocks (natural and human induced) ensuring no discrimination



- iii. Strengthen poverty alleviation programmes to ensure that the vulnerable are resistant to external shocks from hazard impacts
- iv. Improve equitable access to financing to support livelihood restoration and promote “life chances” at all levels including for youth. Options can include Microinsurance initiatives and Livelihood Protection Policies
- v. Revisit cash transfer mechanisms to ensure the implementation focus on stimulation of local economies
- vi. Rationalise Caribbean Safe School Initiative & SMART Healthcare Facilities programme to focus on elements of resilient health care and education.
- vii. Establish social protection support schemes for those who wish to build safely but don’t have the means especially low and marginal income persons. Existing technologies for safe building at low-costs should also be harnessed.

## **7.2 Enhancing Economic Opportunity**

This pillar seeks to provide a landscape which promotes economic growth through diversification of economies and strengthening of the enabling environment. The following is recommended:

- i. Enhance the provision of micro credit for recovery for Small and Medium Enterprises
- ii. Strengthen domestic insurance industry to improve capabilities for serving business after an event
- iii. Develop supporting and flexible social protection systems that expand with disaster response.
- iv. Promote education reform which adequately prepare people for entrepreneurship through more significant incorporation of business and innovation
- v. Incorporate more robustly hazard risk into Public Sector Investment Programmes (PSIP)
- vi. Enforce building codes and planning and zoning laws to protect economic investments
- vii. Utilise recovery activities to promote economic diversification through capitalizing on unique skills within the region

## **7.3 Safeguarding Infrastructure**

The following is recommended for safeguarding infrastructure:

- I. Accelerate the national and regional building codes enhancement, adaptation and implementation processes
- II. Invite HEIs to review teaching and training programmes for built environment services
- III. Consolidate efforts of HEIs and others for materials testing and certification systems
- IV. Review legislation with a view to address issues of market surveillance, enforcement and accountability

- V. Create incentives for research and development of new materials and services for SMART development, alternate energy, energy efficiency, water resources management, greening and associated areas
- VI. Enhance public education and information on safe and resilient communities

#### **7.4 Pillar 4: Environmental Protection**

The following is recommended for improved environmental protection:

- i. Harness the economic benefits of the environment by treating it like a business through monetizing environmental practices through the use of incentives and disincentives and utilising the valuation of ecosystem based services to build climate resilience
- ii. Promote improved enforcement through the development of new and/or the updating of existing legislation in the following critical areas:
  - Environmental Impact Assessment
  - Waste management and land use, for example phasing out the use of single use plastics by 2025/2030
  - Integrated Water Resource Management
- iii. Promote the freedom of information and data sharing
- iv. Implement the CARICOM policy on statistics that will inform decision-making
- v. Promote greater integration of environmental information in informal education, which is targeted to key groups of stakeholders
- vi. Utilize the natural environment and its assets to manage risks
- vii. Promote the protection of critical areas to preserve biodiversity, recognizing potential future economic, social and cultural value
- viii. Develop incentives to encourage environmentally friendly practices, targeted to the private sector, communities and youth. These areas may be included:
  - Sustainable agricultural practices
  - Sustainable forestry management practices
  - Mangrove rehabilitation
  - Plastics disposal
  - Recycling
  - Creation or enhancement of marine habitats
- ix. Set targets for the implementation of environmental goals. One proposal is that CARICOM States or Government Offices should utilise 100% renewable energy by 2050
- x. Apply measurement methods to gauge the effectiveness of the adapted policies

#### **7.5 Operational Readiness and Recovery**

The following is recommended to promote operational readiness and recovery.

- i. Establish standards for regional and emergency telecommunications that apply to communication protocols and equipment

- ii. Establish the Regional Response Mechanism (RRM) at national and regional levels as a standard for response support to impacted countries
- iii. Design, implement and sustain a financing mechanism for a wholistic and integrated regional response
- iv. Establish a logistics framework that guides the strategic and operational concept for regional logistics which incorporate regional and national players
- v. Establish a Recovery Facility to treat with the post disaster response efforts and facilitate countries recuperating and rehabilitating
- vi. Promote Business continuity/Continuity of operations after an event
- vii. Categorise the Emergency Operations Centre (EOC) as a critical infrastructure and provide resources to maintain and improve these
- viii. Include health infrastructure in planning for operational readiness and recovery

## 8 CONCLUSION

Climate change will have significant impact on expected future losses in the Caribbean basin. It will contribute an additional US 1.4B in additional annual losses by 2050. This only represents the losses associated with increased wind damage and excludes additional losses from storm surge and sea level rise (GAR 2015). Climate related hazards such as hurricanes, flood, drought and landslide and Seismic related events such as earthquakes, volcanoes and tsunamis are a part of the regional Caribbean landscape. Comprehensive Disaster Management (CDM) 2014 - 2024 with its goal of **“Safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management”** is core to the achievement of a resilient Caribbean Community.

Safer and more resilient society promotes sustained economic development and embodies five (5) key components which are social protection for the marginal and the most vulnerable, infrastructure hardening, economic diversification, environmental protection and operational readiness. CDEMA is already working with Member States, CARICOM Institutions and Associate Institutions to advance resilience through CDM and also for supporting disaster response actions through the Regional Response Mechanism (RRM). This needs to be recognised, collaboration further encouraged for a wholistic approach to implementation and the Regional Response Mechanism adequately resourced. The region has demonstrated that it can be mobilised quicker than the international community in responding to a local crisis and we continue to provide support long after the immediate response support window has closed.

In general, it should be noted that pursuing a Resilience Agenda is a necessary next step as this will serve to reduce vulnerability.